**SARS Pothole Seekers**

**Issues:**  
-Getting many false claims for damages.  
-will cause bankruptcy in 3 months. (Short timeline)  
-currently have paper based system.

**Actors:**  
Mrs Hull: Town councilman  
Citizen  
Claim manager  
Fraud manager  
Drone

**Requirements:**  
Must be able to determine if claim is false. (Mrs Hull)  
-To achieve: must be able to log claims electronically (citizen)

When submitting claim:  
-Citizen provide information (Unsure how to achieve)  
-Allows us to analyse if claim if valid or not (Unsure how to achieve)  
When subitting:  
-Must Log incident: includes location and how incident occurs (Citizen: This is the information talked about above)  
- Must also take photos of potholes   
- + upload them  
  
When claim submitted:  
-Fraud manager must verify claim. (will get to later)  
-Review Claim  
-Flag Claim

If claims successful (shows dependency)  
- Make payment to citizen  
  
To process claim:  
-Can accept or reject claim  
  
If rejected claim: Notifies citiezen  
If accepted: payes out.  
  
To avoid multi payouts, claim manager must specify GPS location of where drone should fix pothole

Mrs Hull:  
Pay staff  
Review staff performance  
Discipline staff based of review

Drone:  
Fix pothole

**No ISD in exam, but component diagram**s

Q1  
1.1 Definition from book – **NB word for word in test  
-**The application of a systematic, disciplined, quantifiable approach to the development, operation and maintenance of software; that is the approach of engineering to software.

1.2 Definition of software… **NB in test**  
-Instructions that when executed provides the desired features…  
-Data structures that enable the programs to adequately manipulate information  
-Descriptive information …

1.3  
-Software is logical and from engineering perspective, is physical  
-Software is not effected by physical environment, while engineering is.  
-Software does not wear out, but it does deteriorate  
-Software can be re-engineered (release a new version), while you cannot do that with engineering (ie cannot re-engineer bridge, must rebuild it)

Q2

2.1 **NB**  
Scenario Based: Mrs Hull has told us that the company is unable to stay open and may go bankrupt in 6 months, due to the system not validating user claims. This can be further explained using the following:  
**From a scenario point of view, how can we apply the below?**Understanding the problem and where its originated (Definition of inception, don’t need to write this)  
  
-Inception: A problem identified is that claims are not being validated. This may cause the company to close in 6 months.  
  
-Elicitation: (Problems of understanding, problems of scope) Were we told the problem of understanding in Inception. Were we told problem of scope, or do we need to ask more? Scope: Mrs Hull has described the scope for eg She has told us how she wants claims to be validated. To further understand the scope we could interview the stakehoulders (give any example of stakehoulder eg resident).

-Elaboration: (Expanding or/and refining of the requirements/problem) (easier to look at refining of problem than expanding) Mrs Hull has refined the problem of people submitting claims for the same pothole by requiring a GPS location to be specified with the claim by the claims manager.

-Negotiation: (Compromises) Mrs hull has asked us to allow here to manage employees. This is very ambiguous and is a very big task. (Now how do we negotiate, what mechanism?) To mitigate this , we will get another stakehoulder to refine the requirement.

-Specification: (documentation)  
  
-Validation: (Validating what we have done so far with sponsors) Mrs hull wants us to add validation of claims. (Does this meet one of the objective of the story?) Objective is to validate a claim. Mrs hull says we should validate a claim by “…” and therefore the objective is met.

-Management: (Progress and changes to that progress) (Unpack a scenario you can change, and how you will change it) The system allows for manual capturing, we will be able to automate this

We cant go class based, and then do the above. If we did class based, the above would be , oen of the main classes is Validation. (For inception)

2.2  
-Identify main problem (not bankruptct): main problem is cant validate claims.  
So if claims are validated, all those sub problems will be solved.

Mrs Hull has described that there is no way to validate claims for pothole damage of cars of the citizens.   
(-Now list sub problems, what does this effect? You must refine the core of the problem)  
This allows false claims to be submitted, that are paid out.  
Paying false claims, will therefore cause the company to go bankrupt in 6 months. Citizens can make multiple claims for the same pothole.

[2] Relevant  
[2] Describing the problem  
[**-2**] Describing the solution

2.3  
Do not describe a problem.  
Address the problem.  
  
We should build Mrs Hull a system that is able to validate ………… Then talk about how addressing sub problems addressed. By validating, we ensure no false payouts so no bankruptcy ect.

Q3

3.1  
-(Must talk to a requriement)  
-(Is it relevant to objectives)  
-(Can it be measured)  
GPS not accurate